

PROCESS OF END-FORMING A TUBE HAVING INTERNAL SURFACE FEATURES

Abstract

A process by which the end of a tube having at least one internal surface feature is reduced and at least a portion of the surface feature eliminated from the tube end while achieving accurate control of the outer diameter of the tube end. The process preferably makes use of a forming tool comprising an external die for reducing the outer diameter of a tube and a mandrel for deforming the internal passage of the tube. The process generally comprises forcing the external die over the end of the tube so that the outer diameter of the tube end is reduced and so that the mandrel is simultaneously inserted through the internal passage of the tube end. While the tube end remains within the external die, the mandrel is withdrawn from the internal passage of the tube end to eliminate the internal surface feature.